

Work Order ID 161525

Thursday, May 18, 2017 8:22:57 AM

*BLUE****161525***

Page 1

Item ID: D3407-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Tow Ring
Start Date: 5/17/2017 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 5/30/2017 Req'd Qty: 20.00 ***20*** Customer:
Reference:

Approvals: Process Plan: *W* Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3407	Rev E

100

0.00

100

Large Fab

Large Fab

Memo

3.40

Large Fab

Weld D3407-3/-5 using welding rod TIG174 as per Dwg D3407 & QSI
004A/R TIG174 ROD Batch: 102576*(20)**DY 17/06/15*

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00

110

QC

Memo

0.40

Quality Control

*(20)**17-06-15 PD*

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.40

Quality Control

*(20)**17-06-15 PD*

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Thursday, May 18, 2017 8:22:57 AM

Item ID: D3407-043 Accept *N900040100* Setup Start *NS1*
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 Start Date: 5/17/2017 Start Qty: 20.00 *20* Cust Item ID:
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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

135

135

SprayPaint

Spray Painting

Memo

PRIME B _____

DEL FLEET BLUE B _____

CLEAR DEL FLEET B _____

0.00

0.00

DAS
13
9-89

P/O: 36740 JUN 19 2017

Antisauce

145

145

QC

Quality Control

QC14- Inspect Spray Paint

Memo

0.00

0.00

20

DAS
38
9-89

JUN 26 2017

150

150

Packaging

Packaging

Identify as per dwg & Stock Location: ~~31530~~

Memo

0.00

2.00

31530

20

DAS
38
9-89

JUN 26 2017

140- rec'd + inspect

20x SPI 76-26

Work Order ID 161525***161525***

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Thursday, May 18, 2017 8:22:57 AM

Item ID: D3407-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Tow Ring
Start Date: 5/17/2017 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 5/30/2017 Req'd Qty: 20.00 ***20*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.20							
Quality Control									

DAS
21
9-89

JUN 27 2017

Picklist Print

Wednesday, May 17, 2017 11:07:03 AM

Page 1

Work Order ID: 161525

161525

Parent Item: D3407-043

D3407-043

Parent Item Name: Tow Ring

Start Date: 5/17/2017

Required Date: 5/30/2017

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP Rev:A05.10.14New issueKJ/EC
IPP Rev:B 08-09-09 revE as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3407-3		Manufactured	No			100	Each	15.0000	1	20			
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D3407-3

Stem

**

DYK 17/06/15

Location	Loc Qty	Loc Code
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WA001	15	
-------	----	--

160195	15	
--------	----	--

D3407-5		Manufactured	No			100	Each	16.0000	1	20			
---------	--	--------------	----	--	--	-----	------	---------	---	----	--	--	--

D3407-5

Ring

**

DYK 17/06/15

Location	Loc Qty	Loc Code
----------	---------	----------

WA001	16	
-------	----	--

159772	16	
--------	----	--

13161752

16

4

DQA: _____ Date: _____



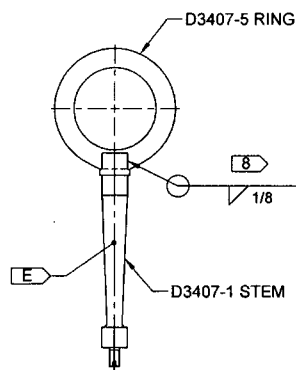
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

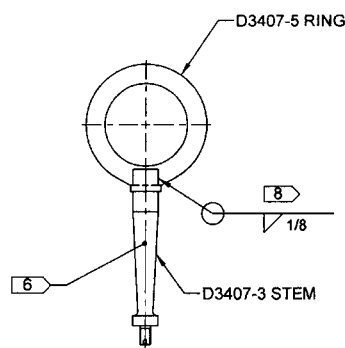
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
OTHER : _____					

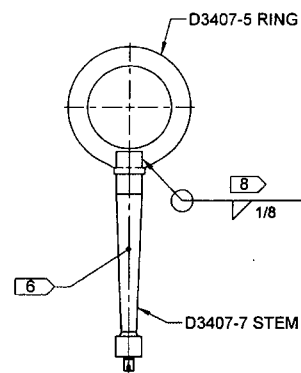
QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
	X		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM



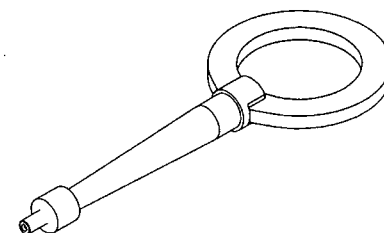
D3407-041 TOW RING



D3407-043 TOW RING



D3407-045 TOW RING



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 161525 MJS
17-05-17.

RELEASED

NOTES:

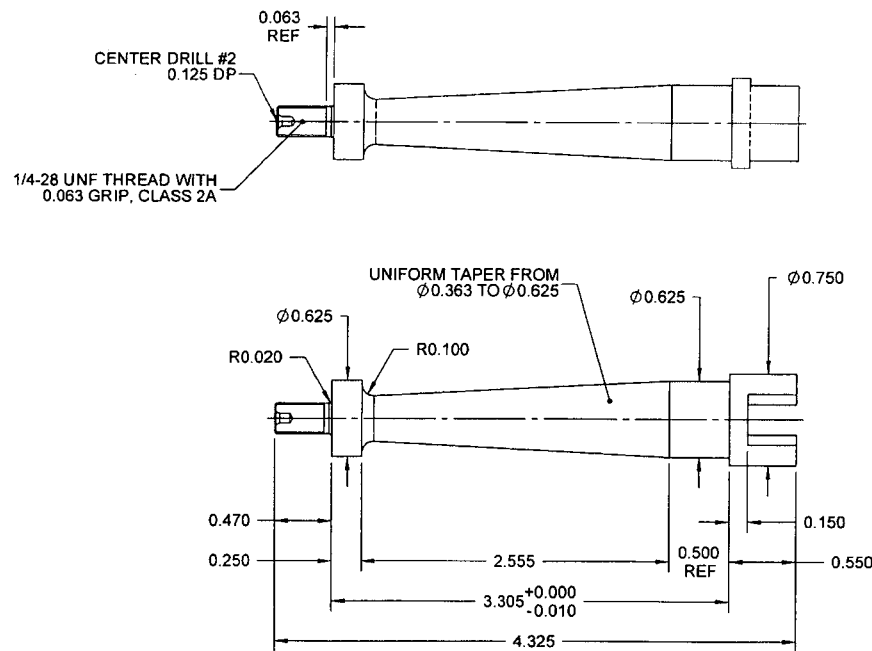
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
- 8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/3 LONGER FOR FIT W/WASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.23		

DART AEROSPACE USA, INC.
PORT HADLOCK, WA

DRAWING NO. **D3407** REV. E
SHEET 1 OF 5
TITLE **TOW RING** SCALE NTS

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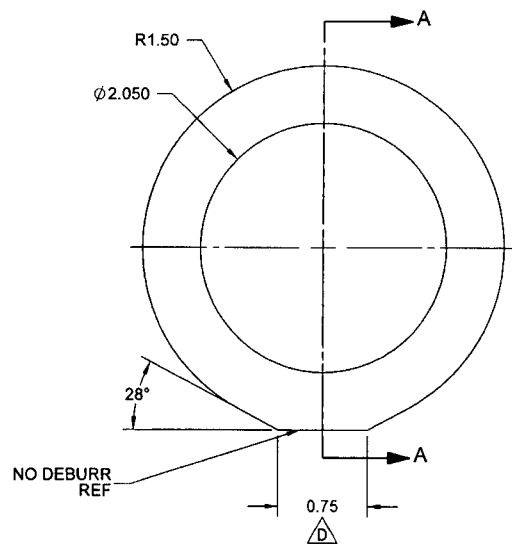
D3407-3 STEM

NOTES:

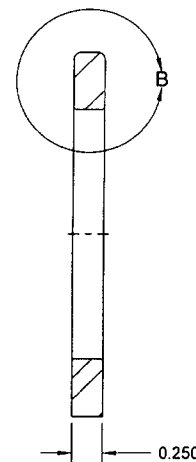
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.27 lbs

RELEASED
04-03-01-118

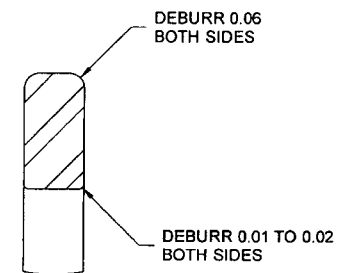
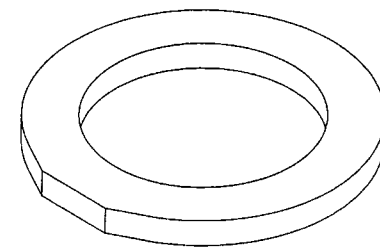
DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
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D3407-5 RING



SECTION A-A



**DETAIL B
SCALE 2X**

RELEASED
08-07-23

NOTES:

- 1) MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.27 lbs

DESIGN	92	DART AEROSPACE USA, INC.	
DRAWN	PER	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO36740

Purchase Order Date 6/19/2017

PO Print Date 6/22/2017

Page Number 3 of 6

Order From :

ATELIER DEBOSSSELAGE
358 PRINCIPALE
CALUMET, QC J0V 1B0
CA

VC-ATE001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

819 242 5633

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

7	161479	D3394-3BL LUG	6/29/2017 Yes 6/29/2017	20.00	\$0.00	\$0.00
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Line Total: \$0.00

8	161528	D3414-041BL LUG	6/29/2017 Yes 6/29/2017	30.00	\$0.00	\$0.00
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Line Total: \$0.00

9	161525	D3407-043BL TOW RING	6/29/2017 Yes 6/29/2017	20.00	\$0.00	\$0.00
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Line Total: \$0.00

DAS
38
1-89

PO Instructions: PRIMER DESOTO AND PPG DELFLEET PAINT SUPPLY BY DART

Note:

6/22/2017